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(54) POLYMETHINE COMPOUNDS, METHOD OF PRODUCING SAME, AND USE THEREOF

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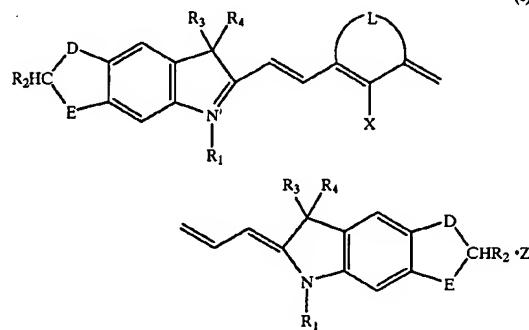
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(57)

ABSTRACT

The invention provides near infrared absorbers showing high light-to-heat conversion efficiency and high sensitivity to laser beams whose emission region is within the range of 750 nm to 900 nm, plates for direct printing plate making, and novel compounds which can be used in such absorbers or plates. The compounds are polymethine compounds of the general formula (I) shown below and the near infrared absorbers comprise the polymethine compounds.

(I)



In the formula, R₁ represents an alkyl group, which may optionally be substituted, R₂ represents a hydrogen atom or a lower alkyl group, R₃ and R₄ each independently represents a lower alkyl group or R₃ and R₄ may combinedly form a cyclic structure, L is an alkylene group which is required for the formation of a cyclic structure and may optionally be substituted, one or more carbon atoms of which cyclic structure may be replaced by some other atom(s) or atomic group(s), D and E each independently represents an oxygen atom or a methylene group, X represents a hydrogen or halogen atom or a substituted amino group, and Z represents a charge-neutralizing ion.

10 Claims, 7 Drawing Sheets

